

**Triggers Focus Group  
Technical Issues Committee  
Meeting Notes  
15 December 2005**

**Attendees:**

Bill Thomas, Southern San Joaquin Water Quality Coalition  
Claus Suverkropp, Larry Walker and Associates  
Dania Huggins, Central Valley Regional Water Quality Control Board  
John Swanson, Central Valley Regional Water Quality Control Board  
Margie Lopez-Read, Central Valley Regional Water Quality Control Board  
Marshall Lee, Department of Pesticide Regulation  
Dan Waligora, Department of Fish and Game

**Telephone Attendees:**

Bill McKinney, East San Joaquin Water Quality Coalition  
Debbie Lieberbach, Turlock Irrigation District  
Elaine Archibald, Archibald Consultants  
G. Fred Lee, G. Fred Lee & Associates  
Jim Atherstone, South San Joaquin Irrigation District  
Karen Larsen, Central Valley Regional Water Quality Control Board  
Lenwood Hall, University of Maryland  
Leticia Valadez, Central Valley Regional Water Quality Control Board  
Mike Johnson, UC Davis  
Mike Niemi, Modesto Irrigation District  
Stephen Clark, Pacific EcoRisk  
Alan Cregan, Central Valley Regional Water Quality Control Board - Fresno

**I. DISCUSSION ITEMS**

There are eight topics that the Triggers Focus Group was charged with addressing, based on the 6 December TIC meeting. These are as follows:

1. Triggers for resampling and timing of resampling
2. Type of contaminants that require re-sampling
3. Compliance monitoring (2 upstream, timing, etc)
4. Process for factoring in magnitude and set priorities for resampling
5. Other means to identify source (eg: PUR database)
6. Upstream sampling in Irrigation season only (not in storm season)
7. Practicality of a forensic approach and upstream monitoring
8. Trigger to initiate storm event monitoring

The discussions centered on topic #1, although many of the topics overlap, and throughout the course of the Focus Group meeting, topics #1, #5, #6, #7, and #8 were all touched upon to some extent.

Members of the group discussed a variety of considerations regarding resampling following exceedances for toxicity tests during storm season and during irrigation season as well as resampling following exceedances for parameters other than toxicity. There was also a discussion regarding source identification and Compliance monitoring.

In proposing the recommendations for resampling, a variety of considerations were discussed including:

- The objective of resampling – for persistence not for confirmation,
- Complications for timing of resampling - laboratory turn-around time, difficulty in predicting storm events, relationship to dormant spray applications...
- Relative importance of resampling for exceedances for toxicity, pesticides and some physical parameters (eg: pH, conductivity, DO),
- Relationship between toxicity test results and pesticides, metals and other contaminants

## **II. PRELIMINARY RECOMMENDATIONS REGARDING RESAMPLING**

### **A. Storm Season – toxicity testing**

An alternative strategy for resampling after a toxicity hit is recommended for storm season vs. irrigation season monitoring. This is due to the relative consistency of irrigation water quality as compared to storm water runoff. Some possibilities might be:

1. Resampling immediately following a toxic hit is not truly representative of contaminant ‘duration or persistence’ because the persistence of rainfall does not necessarily exist. Therefore, the conditions change too much to evaluate duration. It is better to collect two or three samples (each two or three days apart) during the next storm event of the same ‘type’.
2. Consideration should be given to having the first year’s storm season identify problem locations that might need multiple sampling events to identify persistence. The second year’s storm season should require monitoring more frequently during storm events at the locations that exhibited toxicity during the first years storm monitoring.
3. Current MRP calls for storm season monitoring two times – once during and once after a storm event. It makes more sense to monitor at ‘first flush’, as in other storm water programs, as well at the start of one additional storm event.
4. The Ag Commissioners can provide up-to-date PUR information. Require that coalitions seek guidance from Commissioners for pesticide use and sampling locations, go to the ‘integrating points’ for where these pesticides are used. At those locations sample 2 or 3 samples about a day apart during storm events.
5. When there is a toxicity hit, don’t worry about resampling in storm season. Find out who is using the pesticides and implement management practices. Report on that MP implementation instead.
6. Monitor at two rain events per year, and do not worry about resampling for persistence. Over time after several years, you will know if there is a problem.
7. Plan in advance of the storm season for repeat toxicity monitoring. Find out areas of highest use, and plan an approach for monitoring that is consistent with the timing and quantity of pesticide use.

## **B. Irrigation Season**

Instead of requiring that a hit in a toxicity test require another toxicity test, better to require pesticide monitoring or other parameters. (*Note: toxicity may be caused by something - or several things - that are not being monitored*)

1. A hit in pesticide toxicity during irrigation season should not trigger resampling. It should trigger a meeting with the Ag Commissioner, implementation of BMPs, and reporting on that activity instead. (*Note: this will not provide persistence information*).
2. BMP implementation may not be necessary after just one toxicity hit. There needs to be some other information, or indications of ongoing toxicity before that is required.
3. BMP implementation may be appropriate after just one sample with toxicity, if other information, such as pesticide results, provide good indication of the cause of the toxicity.
4. Some parameters should be monitored more frequently than once per month during irrigation season when there is any exceedance.

## **C. Resampling after exceedances, other than toxicity**

It may be necessary to define a different approach for resampling following exceedances of Field Parameters (such as DO, pH, EC) than for metals, pesticides or other laboratory analyses. This is largely due to turn around time for laboratory results, but cost is also a factor.

1. Establish an 'instantaneous' approach for exceedances of field parameters when they occur.
2. Provide a matrix of some possible causes for exceedances of field parameters, such as pH, DO, EC.
3. It was suggested that there are seven categories of contaminants that might require a different approach for resampling in each category. These are: a) Toxicity, b) Inorganics/nutrients, c) Pesticides, d) Solids/Sediments, e) Pathogens, and f) other parameters such as DO, pH, and miscellaneous parameters such as color. .

Members of the Triggers Focus Group will put some thought to providing draft language for an MRP that will address comments II.C.1 through II.C.3.

## **III. PRELIMINARY RECOMMENDATIONS REGARDING SOURCE IDENTIFICATION**

Many expressed the opinion that the requirement in the Tentative MRP for Compliance Monitoring at two upstream locations following a water quality exceedances did not allow enough flexibility to account for different circumstances. Some possible recommendations were:

- A. Coalitions should develop a plan in advance that will prescribe the quantity and locations for resampling depending on the water body and it's land uses. Some alternative ideas were discussed and drafted on the wipe-board during the meeting (see attached representation).
- B. Language for a trigger to stop resampling needs to be developed, as well as a trigger to start resampling.
- C. Types of contaminants that should require resampling include Nutrients, pH and DO,

Members of the Triggers Focus Group will put some thought to the type of language that can be used in an MRP to address recommendations III.A, and III.B.

#### **IV. OTHER RECOMMENDATIONS**

- A. It is necessary to provide a flow chart in the MRP that clearly outlines the steps for resampling, reporting, and other follow-up.
- B. A recommendation needs to be made to the Board regarding proper averaging for DO/ pH or other parameters. There needs to be some kind option that takes into account the diurnal fluctuation of some of these constituents.

#### **V. NEXT STEPS**

Central Valley Water Board staff will provide the Focus Group members with tabulated information from first annual monitoring report that correlates toxicity hits to other monitoring results.

A table that provides information regarding possible causes of certain field parameters will be initiated.

Members of the Triggers Focus Group will put some thought to providing draft language for an MRP that will address comments II.C.1 through II.C.3.

Members of the Triggers Focus Group will put some thought to the type of language that can be used in an MRP to address recommendations III.A, and III.B.

Consider which of the above listed recommendations should be presented to the TIC at the meeting on 24 January 2006. (Or any new thoughts/ideas recommendations that should be included)

The draft flow chart for resampling will be shared with the Triggers Focus Group prior to the next TIC meeting. This chart is representative of the steps as described in the Tentative Coalition Group MRP, only.

Select a spokesperson for the Triggers Focus Group that will present the recommendations at the next TIC meeting.

**NEXT TELEMEETING DATE:** 11 JANUARY 2006, 9 a.m. to 12 p.m. Teleconference line: 916-574-1755. For those that are able to attend in person, the Feather River room has been reserved for this purpose.